

REMARKS

Claims 32-34 have been added. Claims 1-14 and 25-34 remain in the application. Reconsideration of the application in view of the amendments and the remarks to follow is requested.

The Office Action states (p. 1, "Disposition of Claims") that claims 1-14, 25-31 and 40 are pending in the present application. Applicants are unaware of a claim 40 ever having been in the application, and believe that claims 1-14 and 25-31 are pending in the present application.

Claims 1, 2, 7 and 9 stand rejected under 35 U.S.C. §102(a) as being anticipated by Araki et al., U.S. Patent No. 5,882,994. Applicants assume that what was intended was to reject these claims under 35 U.S.C. §102(e) because Araki et al. is not available as prior art under 35 U.S.C. §102(a). Claims 3-6, 8, 10-14 and 25-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Araki et al.

The §102 rejection of claims 1, 2, 7 and 9 is believed to be in error. Specifically, the PTO and Federal Circuit provide that §102 anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). The corollary of this rule is that the absence from a cited §102 reference of any claimed element negates the anticipation. *Kloster Speedsteel AB, et al. v. Crucible, Inc., et al.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

1 No §103 rejection has been lodged regarding claims 1, 2, 7 and 9.
2 Accordingly, if Applicants can demonstrate that the Araki et al.
3 reference does not disclose any one claimed element with respect to
4 claims 1, 2, 7 and 9, the §102 rejections must be withdrawn, and a
5 subsequent non-final action made with a different rejection in the event
6 that the Examiner still finds such claims to be not allowable.

7 Claim 1 recites “forming a floating gate over a substrate, the
8 floating gate having an inner first portion and an outer second portion;
9 and providing conductivity enhancing impurity in the inner first portion
10 to a greater concentration than conductivity enhancing impurity in the
11 outer second portion”, which is not taught or disclosed by Araki et al.
12 Similarly, claim 9 recites “forming a first layer of conductively doped
13 semiconductive material over a semiconductive substrate; forming a
14 second layer of substantially undoped semiconductive material over the
15 first layer”, which is not taught or disclosed by Araki et al.

16 Araki et al. teach (col. 3, lines 23-25 and 31-36), formation of a
17 floating gate comprising three layers, “such as non-doped
18 polysilicon/impurity doped polysilicon/non-doped polysilicon.” Araki et
19 al. teach (col. 1, lines 56-64) that it is undesirable to form a first layer
20 of a floating gate from doped polysilicon, because then “phosphorus
21 within floating gate 84 is diffused into the cell gate oxide film” and
22 because “it invokes a problem concerning reliability due to an increase
23 in the leak current.”

1 Claim 25 recites “forming a first layer of polysilicon over a
2 substrate to a first thickness; doping the first layer to a degree
3 sufficient to define a sheet resistance of between 300 ohm/sq. and 400
4 ohm/sq.; after the doping, forming a second layer of polysilicon over the
5 first layer of polysilicon to a second thickness”, which is not taught,
6 disclosed, suggested or motivated by Araki et al.

7 Araki et al. teach that it is undesirable to form a first doped
8 polysilicon layer in forming a floating gate transistor, for reasons noted
9 above. It is a main intent of Araki et al. to provide a first layer that
10 is undoped, and this is done for the intended purpose of separating the
11 doped layer from the gate oxide. Applicants note that MPEP §2143.01
12 indicates that “THE PROPOSED MODIFICATION CANNOT RENDER
13 THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED
14 PURPOSE”, and that if the modification does render the prior art
15 unsatisfactory for its intended purpose, there is no suggestion or
16 motivation to make the proposed modification. *In re Gordon*, 733 F.2d
17 900, 221 USPQ 1125 (Fed. Cir. 1984). Accordingly, the rejection of
18 claim 25 should be withdrawn, and claim 25 should be allowed.

19 Dependent claims 2-8, 10-14 and 26-31 are allowable as depending
20 from an allowable base claims and for their own recited features which
21 are neither shown nor suggested by the prior art.

22 New claims 32-34 are allowable over the art of record. New
23 claims 32-34 are supported by text appearing at p. 4, line 5 through

1 p. 9, line 5 of the application as filed. No new matter is added by
2 new claims 32-34.

3 In view of the foregoing, allowance of claims 1-14 and 25-34 is
4 requested. The Examiner is requested to phone the undersigned in the
5 event that the next Office Action is one other than a Notice of
6 Allowance. The undersigned is available for telephone consultation at
7 any time during normal business hours (Pacific Time Zone).

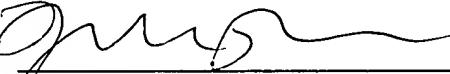
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9 Respectfully submitted,

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11 Dated: 3/25/2000

12 By:



13 Frederick M. Fliegel, Ph.D.

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